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TEACHERS

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# *The Teachers College* JOURNAL

NUMBER 6

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# CONTENTS

Seventh Indiana Workshop on Teacher Education

Page 103

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## MAY COVER

**Dean J. E. Grinnell.** Dean Grinnell has resigned his position as Dean of Instruction at Indiana State Teachers College to accept the position of Dean of the College Of Education, Southern Illinois University, Carbondale, Illinois. Since coming to Indiana State in 1938, Dean Grinnell has worked continuously for the betterment of The Teachers College Journal, serving as editor for the periods 1938-1941 and 1947-1949, and at other times as editorial associate and member of the editorial board. His many articles have been a source of inspiration and a highlight among the Journal features. The Editorial Board and the Editorial Associates express regret at the departure of Dean Grinnell, but extend to him best wishes in his new position.

Charles Hardaway  
Editor

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The Teachers College Journal seeks to present competent discussions of professional problems in education and toward this end restricts its contributing personnel to those of training and experience in the field. The Journal does not engage in re-publication practice, in belief that previously published material, however creditable, has already been made available to the professional public through its original publication.

Manuscripts concerned with controversial issues are welcomed, with the express understanding that all such issues are published without editorial bias or discrimination.

Articles are presented on the authority of their writers, and do not necessarily commit the Journal to points of views so expressed. At all times the Journal reserves the right to refuse publication if in the opinion of the Editorial Board an author has violated standards of professional ethics or journalistic presentation.

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**THE TEACHERS COLLEGE JOURNAL**



# Seventh Indiana Workshop On Teacher Education

PROGRESS REPORT  
NUMBER SEVEN

The seventh Workshop on Teacher Education was held at Turkey Run State Park, November 7, 8, 9, 1954. The theme of the workshop was "The Improvement of Instruction in Indiana Colleges." As has become the custom, members of this workshop came from nearly all of Indiana's colleges and universities, and they represented virtually every collegiate discipline. Representative of the public schools were also among the group, as for example, Mr. Robert L. Springer, Assistant Superintendent of the Indianapolis Public Schools, who served as chairman of all general sessions. Members of the Teacher Training and Licensing Commission and the Indiana Commission on Teacher Education and Professional Standards were also invited to attend as in previous years. The program was the result of many meetings of the Steering Committee held during the year under the able direction of Herbert Heller, Depauw University.\*

The seventy-seven participants met on Sunday night to hear Father Pax of St. Joseph's College present some historical data which provided a perspective for this year's program. A summary of Father Pax's remarks follows.

## Father Pax

Since 1937 those directly engaged in the supervision of student teaching have met two or three times a year to discuss and study problems of common concern. This group, the Indiana Directors of Student Teaching, was first called together by Dr. L. O. Andrews,

then of Indiana University, for the purpose of promoting better communication between the Commission on Teacher Training and Licensing and the directors of teacher preparation in the Colleges. When Dr. Andrews moved to Ohio, Byron Westfall of Indiana State Teachers College was Chairman of the group. More recently the Chairmanship has been rotated each year, for example, Schwanholt of Valparaiso, Tanruther of Indiana State, Kraft of Earlham, and Kutz of Hanover.

Realizing that many of the problems of teacher education are state-level problems, the Directors of Student Teaching have always felt that one of their chief objectives was to encourage understanding and cooperation among all the various institutions, agencies, and organizations in the state concerned with teacher education. One of these state-level problems that came up at every meeting was the shortage of properly qualified teachers. On November 23, 1948 the Directors appointed a Committee of five to study this problem: Mr. Howard Batchelder, Mr. Earl Bowman, Miss Margaret Lindsey, Mr. Fred Totten and Mr. H. A. Jeep. This committee, with Mr. Jeep as Chairman, held its first meeting January 9, 1949. Out of their discussion evolved the plans for the first of the Indiana Workshops on Teacher Education.

Thirty-six representatives from institutions of higher learning, the State Department of Instruction, a few Principals and School Superintendents met at McCormick's Creek, March 7-10, 1949. For many it was a three day course in understanding the group process of learning, group dynamics, and workshop techniques. Much time was spent on the identification of problems; thirty-five questions or topics were listed, and six problem areas were agreed upon. Two major foci emerged from the meeting:

1. What are desirable competencies for teachers in today's democracy?
2. How can our teacher education program be set up so as best to help prospective teachers develop desirable competencies?

The most notable result was the generation of understanding, goodwill, and conviction that working together was a rewarding experience. A more tangible evidence of progress was a twelve page report.

Mr. Joe Crow, who had been chairman of the first meeting, was asked to serve again at the second workshop which was held at McCormicks' Creek, November 15-18, 1949. The roster carried sixty-two names. The problems chosen for discussion were:

1. The common curriculum for all prospective teachers both elementary and secondary—(Goal Related Policies—Procedure Related Policies.)
2. Inter-relationships among the teacher education institutions and with the State Department of Public Instruction. Committee B under the leadership of Earl Johnson, revised Bulletin 192, a report to the State Commission of Teacher Training and Licensing.
3. Selection, guidance and retention of teachers in preparation. A twenty-eight page report was published.

Mr. Curtis Howd was the chairman of the Third Workshop held at Pokagon, November 8-11, 1950. The roster carried 62 names. The Steering Committee was as follows: Mr. Jeep, Mr. Batchelder, Mr. Engle, Mr. C. Green, Mr. Kraft, Miss McFarland, Mr. Pax, Mr. Tanruther.

The committee felt that the 1950 workshop should concentrate on the problem of establishing a permanent organization such as a state council to facilitate closer cooperation among all agencies concerned with teacher education.

For the first time a consultant was invited to work with the group. Dean Lawrence Haskew of the University of Texas was chosen as an expert who had been instrumental in the development of several state organizations of the kind envisioned.

\*Steering Committee 1954: Herbert Heller, Depauw University, Chairman; Richard Armacost, Purdue University; Wenonah Brewer, Indiana State Teachers College; Richard W. Burkhardt, Ball State Teachers College; Dan Cooper, Purdue University; Shirley Engle, Indiana University; Father Walter Pax, St. Joseph's College.



Four work groups were organized:

A. Committee on a Proposal for an Indiana Joint Committee on Teacher Education.

B. Committee on Certification Problems.

C. Committee on Curriculum: The Fifth Year of Teacher Education.

D. Committee on Evaluation of the Total Preparation of Teachers.

Twelve problems calling for joint committee action at state level were defined. For the first time a printed report of proceedings was published by Teachers College Journal, March 1951, Terre Haute, Indiana.

The formation of the Committee of Twenty-one of the Indiana State Teachers Association was an outgrowth of this meeting.

Mr. B. L. Dodds was the chairman of the Fourth Workshop held at Pokagon, November 4-7, 1951. There were 56 members.

The Steering Committee selected by the Executive Committee of the Indiana Directors of Student Teachers and the Executive Committee of the Indiana Unit of AST was as follows: Miss McFarland, Mr. Best, Mr. Pax, Mr. Pogue, Mr. Sharpe, Miss Sornson, and Mr. Engle. A questionnaire was sent to participants before the workshop met to ascertain problems of most immediate concern. At the first session problems were grouped under four topics:

1. Moral and Spiritual Values
2. Curriculum in Teacher Education
3. Provisions for Professional Laboratory experiences
4. Certification Problems

Rather definite recommendations were prepared in each of these following areas:

1. Ways and means of teaching for development of attitudes and ideals.
2. Curriculum for general education and common elements in professional courses for both elementary and secondary teaching as well as the fifth year program.
3. Problems of providing an adequate number of qualified supervising teachers in the student teaching program.

4. Certification of institution for preparation.

A workshop on The Fifth Year in Teaching Education held at Ball State Teachers College in 1952 was a direct outcome of the Pokagon workshop.

The Fifth Workshop was held at Pokagon, November 9-12, 1952. Mr. Hanne Hicks was chairman. There were seventy-seven members on the roster. The Steering Committee was as follows: Mr. Sharpe, Mr. Armacost, Mr. Best, Mr. Engle, Mr. Kirklin, Mr. Kohlbrenner, Mr. Pax, Mr. Pogue, Miss Sornson.

The theme selected was "Are there better ways to educate teachers for Indiana's schools?" The program included a symposium on crucial issues, a presentation of "The Arkansas Experiment" by Henry J. Kronenberg, a paper on "The Syracuse Plan" by Mrs. Helene Hartley, and a challenge entitled "The one Best Hope of Free Men" by O. Meridith Wilson of the Fund for the Advancement of Education.

The Sixth Workshop sponsored by Indiana Unit of AST was held at Spring Mill, November 8-11, 1953. Mr. Paul Royalty was chairman. There were seventy-two participants. The Steering Committee was as follows: Waggoner, Armacost, Best, Burkhardt, Engle, Heller Pax, Sharpe. The program was devoted to a further consideration of the competencies of the good teacher with particular emphasis on the intellectual phase of teacher education. The theme was "How Can our Colleges Develop Intellectual Vigor in Teachers?" A panel entitled "Intellectual Vigor, Are we Achieving it?" was the opening feature of this meeting. Dean Byron Trippett of Wabash presented a paper on Contribution of the Liberal Arts. Mr. B. O. Smith of the University of Illinois discussed the Contribution of Professional Education. Observations on these two papers were given by O. Meridith Wilson.

There were four parallel discussion groups. The editing committee made a composite of the four reports, which found five areas of agreement, five of disagreement, and twenty-two recommendations.

Following Father Pax's historical re-

view, Chairman Springer described the objectives of this the Seventh Indiana Teacher Education Workshop. The Steering Committee had recognized that good teachers for elementary and secondary schools were the product of good college teaching. This point had been made in earlier workshops by O. M. Wilson and Dean Byron Trippett. The objective of this workshop was to present several different approaches to college teaching under the general heading of The Improvement of Collegiate Instruction and to provide opportunities for discussion of these ideas.

The Chairman then asked Harold A. Anderson of the University of Chicago to read a paper entitled "Improving College Instruction" which is as follows:\*

## Harold Anderson

For generations it had been tacitly assumed that college and university teachers were adequately prepared for their task if they had a mastery of the subject matter of their area of specialization. It was commonly believed, or at least contended, that if they knew their "stuff," they could teach. Now, in only recent years, there appears to be widespread doubt as to the validity of that assumption.

Evidence of a growing concern over the adequate preparation of college teachers for their jobs as teachers is found (1) in the several conferences of national scope which were held in 1948, 1949, and 1950, and in the numerous local and regional meetings devoted to the subject, (2) in the new programs for the pre-service preparation of college teachers undertaken in a number of graduate schools, (3) in the sharply increasing number of articles and books on the subject in the last few years, including a journal (*Improving College and University Teaching*, first issued in February, 1953) devoted solely to improving college and university teaching, and (4) in the efforts to improve the quality

\*This is not a complete text of Mr. Anderson's address.



of college teaching through programs of in-service training.

The question of the appropriate preparation of prospective college teachers and the in-service improvement of college teaching has, of course, been the subject of discussion at a number of meetings on higher education in the last two or three decades, but it has been only in recent years that the subject has received focal attention. This new era began, really, in November, 1947, with a conference on the preparation of college teachers at Lake Mohonk, New York, under the auspices of the Edward W. Hazen Foundation. That conference was attended by about twenty-five representatives of colleges and universities, most of them in the East.

The following year, in 1948, my own institution, the University of Chicago, sponsored a similar conference attended by nearly one hundred college and university presidents, deans, and other administrative officers from twenty-five states. The next year, in December, 1949, the American Council on Education and the U. S. Office of Education jointly sponsored an invitational conference on the same subject. Approximately 160 college and university presidents, deans of graduate schools, and college professors from virtually every state attended. The following year the same sponsors made possible a second invitational conference, this one on improving college instruction. Since then nearly every meeting devoted to higher education has given a prominent place in the program to college teaching. So widespread and intensive has been the concern with the pre-service preparation and in-service improvement of college teachers during this five-year period that in some respects it can well be called a movement.

Our understanding of the significance of this movement during the last five or six years may be sharpened by some reflection on what the situation was like earlier. Fred J. Kelly, long an authority in the field of higher education, visited twelve leading colleges in the middle 20's. He talked with presidents, deans, and faculty about methods of

teaching in college. Dr. Kelly reported, and I quote:

"At that time there was little interest in teaching as such. Indeed, there was often a tinge of resentment against even raising the question of methods of college teaching. Whose business was it anyway how any college teacher taught?"

#### The Causes for the Movement

One factor in the growing interest in this problem, certainly, was the sharp increase in enrollment at the college level following the Second World War, requiring, as it did, a large number of additional college teachers, many of whom were inadequately prepared. Added to this was the fact that a large portion of this new enrollment was made up of war veterans whose "maturity and settled purposes" called for improved curriculums and better teaching. Furthermore, the increasing variations in the aims of college students and in the nature and quality of their preparation increased attention to the art of teaching. The current interest in improving college teaching derives in part from the expected sharp rise in college enrollments in the near future. It is anticipated that by 1965 we shall need 170,000 new college teachers to replace those who retire or who leave the profession and to meet the demands of an increased enrollment.

There is also, I believe, a new awareness on the part of colleges of their role in American life. The crucial times through which we have been passing have accentuated the need for increasing numbers of well educated young people to meet the challenge of the social, civic, and moral problems of our day.

A third factor is the growing realization on the part of graduate schools that large numbers of their Ph.D's actually go into teaching and not into careers in research. As Earl McGrath pointed out:

"A group of distinguished mathematicians after examining the publications of holders of the Ph.D in mathematics, concluded that 'it is no apparent overstatement to assert that, under present conditions, at least 80 percent

of those receiving the doctorate in mathematics will publish no useful research beyond their doctoral thesis'."

Studies in other fields yield a similar barrenness. Realizing that only a small portion of the holders of Ph.D's will actually enter careers of research and that large numbers of them will go into teaching, graduate schools are forced to ask: What type of education, then, is appropriate for the prospective college teacher?

A fourth factor which may account for the recent and current interest in improving college teaching is the growing amount of understanding which we possess about students as people and about how learning takes place. The findings of psychologists and personnel workers concerning the nature of student motivation and interests and about the nature of learning have caused us to question some of our instructional procedures and curriculum patterns.

College administrators have been asking: Why aren't college teachers specifically trained for their job? As the President's Commission on Higher Education pointed out, "College teaching is the only major learned profession for which there does not exist a well-defined program of preparation directed toward developing the skills which it is essential for the practitioner to possess."

Earlier in this paper I referred to a conference on the preparation of college teachers held at the University of Chicago in 1948. In anticipation of that conference and in an earnest effort to obtain the assistance of college and university administrators, a letter was addressed to the presidents of 850 colleges, universities, teachers colleges, and a few technical schools. The same letter was sent to 150 deans of liberal arts colleges and graduate schools in the larger universities. The letter asked these administrators for their estimates of the strengths and weaknesses of college teachers as trained in American graduate schools.

More than 400 replies from 363 institutions were received. Almost without exception the college presidents and

deans began their replies with four elements of praise. The prospective teacher, they said, is (1) well prepared in his speciality, (2) competent as a research scholar, (3) generally high in native intelligence, and (4) usually sincerely devoted to his scholarly interest. These, certainly, are essential qualities in a college teacher. But they are not enough, at least not enough according to college presidents and deans. For no sooner had they acknowledged these strengths than they hastened to point out weaknesses. The replies ran something like this: "They are well prepared in their specialities, but . . . ." "They are competent as research scholars, but . . . ." "They are generally bright, but . . . ."

What were some of these buts? They fell roughly into four broad categories:

**1. Personal traits**—One broad category had to do with personal traits. These are illustrative statements:

"The difficulty lies more with the person than with his education."

"Poor personalities," "colorless," "queer."

"Poor attitude toward teaching."

"Doesn't like young people."

**2. Too narrowly trained**—Nearly half of the respondents mentioned specifically, and with some emphasis, that prospective college teachers were too narrowly trained. Here are some typical statements:

"The great weakness in college teaching is due to the fact that prospective teachers are too narrowly trained."

"About two years ago I sent letters to all doctors of philosophy from (writer's institution) and received replies from about 40 per cent. Almost without exception they hold the view that we are doing a good job of training these prospective teachers as specialists in a narrow field and are doing a poor job of training them in related fields."

"Lack of ability to see the relationship of their subject to other subjects. Can't synthesize. Can't interpret the meaning of their subject in terms of the wider area."

**3. Interest centered in research, not teaching**—About one-fourth of the respondents mentioned emphasis on re-

search rather than on teaching as a third category of weaknesses. Scholarly ability, certainly, is universally recognized as an essential qualification of a college teacher. But the present emphasis on research in the Ph.D. program often tends to magnify the importance of subject matter development and to minimize the importance of student development. Again, here are a number of illustrative statements from the letters:

They are all trained for research work, and not for teaching.

The present training in graduate schools . . . too often builds a disrespect for the classroom teaching job.

More interested in research than in teaching.

Very effective in interesting people in research and in preparing them for research as a career. Little attention, however, is paid to the fact that the majority of those who receive the doctor's degree . . . eventually become teachers.

As Fred J. Kelly, who later made an analysis of these letters, says: "This is the refrain that runs through the pertinent replies. The indifferent attitude toward teaching, which appears to follow from the present research emphasis, makes doubly difficult the training job left for the employing college to do. Too often the young teachers have become steeped in the idea that their satisfactions as well as their rewards will come from research rather than from teaching. They look upon their period of undergraduate teaching as necessary and not too pleasant experience through which they must go on their way to a professorship which they hope will be devoted largely to research."

**4. Lacks specific training for teaching**—Under a fourth category of weaknesses, namely, "lacks specific training for teaching," is embraced many of the earmarks of the poor classroom teacher. This weakness was mentioned more frequently than any other. Only a few illustrative statements from the letters will be given here:

He has little knowledge of the learning process, the place of motivation, or

the importance of self-direction. He thinks telling is teaching.

He lacks effective techniques of presentation.

He talks over the heads of his students.

He lacks understanding of the place of higher education as an agency of democratic society.

Here, then, we have some evidence of dissatisfaction on the part of those who employ the products of our graduate schools. We might summarize the strengths and weaknesses of college teachers, at least as revealed in letters from 400 presidents and deans, somewhat as follows: College teachers are well-trained as scholars in their rather narrow fields of specialization. They often lack the scope of preparation and breadth of interests necessary to effective teaching particularly at the undergraduate level. Their narrow training and highly specialized interests often militate against their maximum usefulness as members of faculties of small colleges. Too frequently, furthermore, these same well-trained scholars do not possess the personal attributes essential for effective teaching nor do they have adequate understanding of what is involved in good teaching.

I hope that this brief and admittedly subjective description of the strengths and weaknesses of college teachers as trained in graduate schools will not be interpreted either as an attack on graduate schools or as an indictment of college teachers. My purpose has been solely to indicate the present state of dissatisfaction among many leaders in higher education over the preparation of prospective college teachers. I have tried to indicate that it is out of this climate of opinion that programs are being undertaken in a number of graduate schools for improvement in the education of prospective college teachers, and a climate of opinion out of which sincere attempts are being made by college administrators to upgrade the quality of teaching on their own campuses.

#### **The Vocation of the College Teacher**

I should like to take just a few mo-



ments to describe briefly the vocation of the college teacher. A number of us on my campus formulated the following descriptive statement:

1. "The preparation of sound educational programs for American Colleges is a cooperative undertaking in which all teachers and administrators must engage. As a member of a college faculty, therefore, the college teacher has certain important responsibilities. He should be able to help determine and formulate the educational ends and the curriculum structure of the institution in which he is working.

"The duties and activities of a college teacher do not end at the boundaries of his teaching field nor at the door of his classroom. As a faculty member, the college teacher will be asked to make judgments about matters of curriculum which extend beyond the confines of his own teaching field and involve the relations of that field to other fields and to questions of general educational theory. Or, as a faculty member, he may be asked to take part in decisions concerning matters of institutional policy which call for informed judgment concerning the American college as an institution and teaching as a profession.

2. "As instructor, the college teach-

er's task is primarily that of guiding and encouraging students to learn something of the nature and use of the essential knowledge and characteristic methods of his teaching field. The college teacher must be essentially an interpreter rather than a creator of knowledge. Most of the facts and concepts which he uses in his teaching were first disclosed or developed through the creative work of other men. Yet the **interpretation** of knowledge should not be confused with the mere **transmission** of knowledge. The best interpretation and hence the best teaching will seek to bring about the active reconstructing, by both teacher and student, of the processes whereby some present outcome was achieved in past and further knowledge may be gained in the future.

In this capacity, the college teacher will need to determine and formulate the ends of instruction in his particular teaching field, to select or devise learning experiences and instructional procedures which will most effectively achieve these ends, to organize courses and arrange them in appropriate sequence, and to devise means for measuring the degree to which students have achieved the objectives of his instruction.

3. "The college teacher also has responsibility for engaging in research or

other types of creative activity. His productivity may take the form of basic research in his teaching field, in the study of the purposes and processes of higher education, in the creation of instructional materials, or in the production of fine art. Through such activity the college teacher may keep alive his interest and facility in creative work, enhance the quality of his instruction, excite in his students an interest in scholarship, and add to human knowledge and understanding.

4. "The college teacher has responsibilities, also, as counselor of students. Whether this responsibility be formally assumed as advisor or less formally assumed in all of his relations with students, the college teacher is inevitably more than instructor and faculty member.

5. "The college teacher is, furthermore, a member of an important profession and a citizen of the community in which he works and of the larger society of which he is a part. As such, he has certain responsibilities. Among these are (a) interpreting his institution to its community, (b) interpreting to the general public the role of higher education in a democracy, and (c) participating actively as a citizen of his immediate and of his larger community."

## In-Service Improvement of College Teaching

The problem of the improvement of college teaching is not solved, of course, solely by better preparation of prospective college teachers, important as that is, nor in the formulation of a description of the vocation of the ideal college teacher. There remains the task of upgrading the quality of instruction of the more than 100,000 college teachers now on the job. Even good college teachers can become better college teachers.

I know there are those who believe, or at least they so assert, that little, if anything, can be done to improve the college teacher on the job. Indeed, one college professor, after studying the

replies to a questionnaire sent to 12,000 members of the American Association of University Professors, said:

"The conclusion of this survey stressed the fact that about every college teacher believes himself to be a good teacher, and there exists no known technique for convincing him to the contrary."

I do not share the skepticism that college teaching can not be improved through systematic efforts. Your Workshop indicated your belief that college teachers, working together, can improve the quality of their work.

I should like to describe briefly the salient features of a program for the

in-service improvement of college faculties.

**1. Clarification and formulation of the aims and purposes of college education.**—It appears that one of the most fruitful ways of bringing about improvement in curriculum and instruction is to engage the entire faculty in a critical re-thinking of the aims of college education. One of the vital needs in American higher education today is a redefinition of its aims and purposes. What is more, attempts at improving the curriculum and instructional procedures are likely to yield superficial and ephemeral gains unless they are rooted in a clear understanding of goals.

I am aware of the skepticism of some college teachers and administrative officers about the value of formulating



statements of objectives. They contend that these statements of objectives are usually too general, and, as President Harold Taylor put it, they are "expressions of approval for certain abstract virtues which every one would like the younger generations to display."

But that need not be the case. Objectives are often poorly formulated because teachers have not learned how to think about the purposes of education. The purpose of education is to bring about desirable changes in human behavior. Educational objectives, accordingly, must be defined in these terms.

The first undertaking, then, of a college faculty, or of an individual college teacher for his own courses, should be a clarification of the purposes of college education. This fact was clearly recognized by the Committee on College and University Teaching of the American Association of University Professors when it made its well-known report in 1933.

"... it promptly found that the problem of securing an improvement in the quality of college teaching links itself up with many related questions of collegiate purpose and organization. To what end does the college exist? What is its proper place in the whole scheme of American education? ... Can anything be accomplished in the way of improving the quality of college and university teaching unless it is preceded by an agreement concerning the purposes for which the teaching is done." (Bulletin of the American Association of University Professors, May, 1933.)

Similar cognizance of the importance of defining educational objectives was taken by the Conference on Improving College Instruction held in Chicago in 1950. One Study Group of that conference concluded that "in securing faculty effectiveness there is no substitute for the continuing study and review of objectives in education." They agreed, furthermore, that "such appraisal brings best results when the programs and practices of each institution are co-operatively examined by all persons concerned." "The crux of the matter lies," they went on to say, "in some conscious device whereby all persons

in the college try to relate educational aims and methods to a controlling concept of the functions of the institution."

Suffice it to say that unless college teachers set themselves the task of clarifying and defining their objectives, much of what they do may be of little consequence. Someone—I believe it was either George Bernard Shaw or Santayana—has defined a fanatic as one who redoubles his efforts when he has lost his objective. Well, we college teachers sometimes behave that way. We are terribly busy about something but aren't quite sure just what.

**2. Choosing and directing learning experiences.**—After a faculty, or an individual teacher, has formulated a workable set of objectives, the next task, obviously, is one of providing learning experiences for the students which are most likely to produce the changes in behavior described or implied in the statement of objectives. This is logically sound, but pedagogically difficult. If students in a college class in literature are to acquire the ability to discern the good from the less good or to be able to identify the literary elements which distinguish one type of writing from another, then the learning experiences which the teacher arranges for the students must be appropriate to the attainment of those objectives. If a college is interested, as it should be, in developing in its students certain moral virtues and religious convictions, then it must seek to discover and provide those learning experiences which are most likely to bring about the patterns of behavior implied by these objectives.

In my judgment, then, the second important task for college teachers, as individual teachers and cooperatively as faculties, is the serious study of the problem of what learning experiences are most likely to bring about the desirable changes which we seek in our students. I know of no more fruitful way to improve college teaching.

This brings us to the heart of your concern in this Workshop, namely, what kinds of learning experiences are most likely to produce the learning products you seek for your students. At the risk

of some repetition or even of tediousness, I should like to elaborate on this point. The primary task of the teacher is to set the conditions for learning, to arrange the learning environment for the student, to plan the learning experiences for the student. Stated this way, the primary task of the teacher is quite simple: to set the stage for learning.

This proposition, however, raises at once the question: How do students best learn? They learn, of course, through reading, listening to lectures, viewing motion pictures and other types of visual aids, through listening to recordings, through writing papers, giving talks, engaging in discussion, solving problems, observing objects and a variety of phenomena, through synthesis of varied experiences. Students learn in a variety of ways.

It would be accurate to say that, historically, we have relied very heavily on lectures (which for the students means listening, we hope), books (which for the student means reading, note taking), and term papers or theses (which for the student means writing). These time-honored materials and methods are still valuable, but in recent years other methods of teaching, which really means other kinds of learning experiences have been used with increasing frequency: the class discussion, or seminar, small group discussions within the class, panel discussion, lecture-discussion combination, and a variety of modifications of the straight lecture and the highly permissive class discussion; student-instructor planning of the course; tutorials; and a variety of other instructional procedures. These innovations are being tried for only one reason: are these types of learning experiences more likely to produce them more effectively, economically, more permanently?

At this juncture I should like to make the point as emphatically as I can that the guiding principle which should govern the selection of learning experiences for our students should be: Is this the most effective way of bringing about the changes in my students that I am seeking? I mention this merely because so many of us adopt these

newer methods simply because it is the fashion. We abandon lectures in favor of a class discussion, for example, without asking ourselves the only question which is really relevant: Will class discussion provide learning experiences which are more effective than those provided by the lecture?

Our discussion of the methods of teaching must always be viewed, of course, in terms of the nature of the learning products we seek. I like to think of the outcomes of education in terms of skills, abilities, understandings, attitudes, appreciations. Perhaps you prefer other categories. But whatever categories we may choose to classify learning outcomes, the fact remains learning outcomes differ in nature. It is quite one thing to acquire a skill, like typewriting, and quite another to acquire an appreciation for a work of art. The ability to speak with ease and clarity and persuasion is quite a different learning product from an understanding of the germ theory of disease or atomic energy. The differing nature of these learnings, calling, as they do, on different kinds of behavior on the part of the organism, are acquired through different kinds of learning experiences. One doesn't learn how to type by listening to a lecture, but one can come to understand the germ theory of disease by listening to one. Learning products like attitudes and appreciations require experiences in which our affective natures are prominently involved. It is not likely that a student will learn to enjoy or appreciate good literature unless the experiences set for him permit the exercise of enjoyment and appreciation. Students are not likely to learn how to solve problems except by solving problems, and they are not likely to acquire favorable dispositions toward the solution of problems unless satisfactions attend their solution of these problems.

I believe Harold Taylor, president of Sarah Lawrence College, put the matter succinctly when he said in a recent article (*N.E.A. Journal*, May, 1954, p. 284): "The way to teach students to think for themselves is, first of all, not to do their thinking for them."

Well, John Dewey said much the same thing in his famous phrase: "We learn to do by doing." If John Dewey isn't respectable in academic circles, take Aristotle instead. He said: "The things which we are to do when we have learned them, we learn by doing them."

Ralph Tyler put the matter this way: "Learning takes place through the active behavior of the student; it is what **he** does that he learns, not what the teacher does . . .

"The definition of experience as involving the interaction of the student and his environment implies that the student is an active participant, that some features of his environment attract his attention and it is to these that he reacts. The question may be raised as to how far it is possible for a teacher to provide an educational experience for a student since the student himself must carry on the action which is basic to the experience. The teacher can provide an educational experience through setting up an environment and structuring the situation so as to stimulate the desired type of reaction. This means that the teacher must have some understanding of the kinds of interest and background the students have so that he can make some prediction as to the likelihood that a given situation will bring about a reaction from the student; and, furthermore, will bring about the kind of reaction which is essential to the learning desired. This theory of learning does not lessen the teacher's responsibility because it recognizes that it is the reactions of the learner himself that determines what is learned. But it does mean that the teacher's method of controlling the learning experiences through the manipulation of the environment is such as to set up stimulating situations—situations that will evoke the kind of behavior desired." (*Syllabus for Basic Principles of Curriculum and Instruction*.)

I have developed the thesis that modern innovations in college teaching have sprung from the concept of learning which I have described. This view of learning is the motivating force behind the intensive studies of college

teaching now under way at Michigan State College; the fruitful experiments at Sarah Lawrence College; the provocative work of Nathaniel Cantor at the University of Buffalo; the studies at Oregon State College, Carleton, St. Olaf, Knox, and Hope College, to mention a few.

As you discuss the improvement of college instruction in this Workshop, you must inevitably come to grips with the problem of creating in your classroom and on your campus an educational environment designed to produce to the maximum degree the kinds of reactions students must make if they are to learn what you want them to learn.

Limitations of time preclude a discussion of the equally challenging and perplexing problem of sequence in learning. Obviously, we can't teach everything at nine o'clock on Monday morning. We must leave something until Tuesday and until next week and next month, and even next year. This is the problem of organization, the development of syllabi and courses of study. The issues involved in this aspect of college instruction is a subject requiring an evening in itself.

### 3. Evaluation of students progress.—

I can not refrain, however, from discussing one more aspect of improving college instruction, namely, evaluation of student progress. If a college faculty earnestly defines the goals of education and conscientiously strives to organize learning experiences for their achievement, it would seem odd, indeed, did the faculty not attempt from time to time to ascertain whether they and their students were successful in their efforts. Evaluation, or call it testing, examinations, or measurement if you will, is an aspect of curriculum making and instruction which needs to be attacked if college teaching is to be improved. Some faculties, in fact have found it advantageous to begin the attack on the problem of improvement of teaching with a study of examinations and evaluation procedures. For the improvement of evaluation procedures is directly dependent upon further clarification of the objectives of teaching. On the other hand, when the objectives of teaching



are clarified, there is a notable tendency for evaluation techniques to be improved. The faculty which analyzes the examinations and other techniques employed for appraising the students' work almost invariably gains new insights into the problems of learning and the efficacy of teaching materials and methods.

I have to discuss briefly only two or three basic principles relating to evaluation.

The first principle may be stated as follows: "Evaluation must appraise the behavior of students since it is changes in these behaviors which is sought in education." (from Tyler) I believe it is safe to say that in most college classes examinations measure the student's command of the subject matter rather than what the subject matter does for him.

A second principle, perhaps a corollary of the first, is this: evaluation should be made in terms of the avowed objectives. It is not uncommon to find that a teacher proclaims that his objective is to teach literature to develop appreciation and then to evaluate his success by asking his students who wrote what, when and where. Someone has said that the objectives of a man's teaching are better judged from his examinations than from his syllabus. If examinations are to be valid, they must somehow reveal the presence or absence of the behavior implied by our objectives. If typewriting is our objective, what matters is, can the student type? If the objective is the ability to speak in public, the test is, can he speak in public.

A third basic principle relating to evaluation is that the test should present to the student a situation to which he can respond in a way which is likely to reveal accurately the presence or absence of the learning product. If a teacher is interested in ascertaining whether his students turn to good literature volitionally when they have a choice, then the only way to find out is to give the students a genuine choice in reading. You can't ascertain this fact by studying the book withdrawals from the college library. Better, then, to post

yourself at the corner newstand or drug-store bookshelf. "The only way we can tell whether students have acquired given types of behavior is to give them an opportunity to show this behavior. This means that we must find situations which not only permit the expression of the behavior but actually encourage or evoke this behavior." (from Tyler).

#### SUMMARY

May I conclude by saying that the improvement of college teaching is a joint undertaking. Graduate schools, on the one hand, bear the responsibility for providing training appropriate to the tasks of the college teacher. This responsibility the graduate schools have been slow to accept, but encouraging programs are being developed in a number of universities. Colleges which employ the products of the graduate school also share responsibility for improving the quality of college teaching. Many colleges, like your own, are making sincere and fruitful efforts to induct new teachers into the profession and to upgrade those already in service. Working together, graduate schools and colleges may eventually bring to the art and science of teaching the prestige it deserves and give to the vocation of the college teacher the status of the high calling which it is.

On Monday morning members of the Workshop were challenged by the presentation by Cameron Meredith, Northwestern University Educational Psychology Department, entitled "Some Innovations in Classroom Procedures." A written account cannot do justice to the presentation and discussion of this subject, as those who were present will attest. Mr. Meredith described some of his teaching procedures and illustrated several of them. In order to free the audience from the speaker for thoughts of their own, Mr. Meredith distributed some mimeographed materials containing his major points. This was an illustration of one of his classroom procedures.

The following is an additional presentation of the procedures used by Mr. Meredith, addressed to his students.

## Cameron Meredith

### YOU AS AN INDIVIDUAL LEARNER

An understanding of oneself is invaluable in learning to understand others. An understanding of how you think, feel, and act is a prerequisite to your understanding of the behavior of other people. To understand and to improve our professional relationship with people, we must first understand ourselves.

There is considerable agreement among psychologists today that we perceive things in light of our own frame of reference based upon our unique past experience. No two people see a given situation exactly alike. What a teacher perceives, for example is determined by his "under the skin" interpretation. If a child talks in class, one teacher may perceive the behavior as a threat while another may perceive the behavior as an indication of growth. In order for each teacher to understand the reaction of the child and the resultant teacher-pupil relationship, he must understand himself. Children seldom just act; they react. Directly or indirectly the teacher or parent is often the catalyst. He must look into himself if he hopes to change the teacher-pupil or parent-child relationship.

Look around you and the cardinal principle of educational psychology will be apparent — **you are all different.** While there are many similarities, no two individuals start out alike (possibilities of differences in chromosomes content is infinite) or have the same experiences. No one ever has or ever will have the combination of heredity and environment which you possess. You, therefore, are a person with special abilities capable of making a unique contribution to your working group.

Physiological differences are an important part of the after-birth uniqueness of each individual. Individuals differ in the quantity of energy normally made available by tissue conditions. On various occasions, each individual may have vastly differing amounts of energy at his disposal.

This means that you may be "constitutionally" more energetic than another, if, under normal conditions, your phys-



iological functions provide you with more chemical elements to be used in the oxidation process.

Very closely associated with the organic energy potential is the "purpose" behind human behavior. By "purpose" we mean the conscious and unconscious dynamic force which directs the expenditure of our energy. It is often referred to as "motive" or "will". Unconscious "purpose" is associated with organic needs while conscious "purpose" is associated with social needs. In our efforts to utilize and expand energy effectively and efficiently, the ideal combination occurs when conscious purpose is a logical and satisfying extension of unconscious purpose. As we attempt to find the best possible nurture for our given nature, we not only provide for our organic needs, but do so in a manner which is socially acceptable. Within the limits of our physiological means, we change our behavior — thinking, doing, and feeling — to attain the best possible adjustments to our environment.

The changing which takes place in our behavior is our learning. A change doesn't have to be a complete reversal, but may be just an increase or decrease in intensity. It may be an overt or covert change, but it must be a change. For all practical purposes, if you haven't changed as a result of energy expenditure, you have not learned; at least, your learning has not been significant, efficient, or effective. Learning must make a difference. It may be in your feelings, your attitude, your tone of voice, your words, or your actions. In the final analysis, it is simply a change in your behavior.

It is pathetic to observe a graduating senior who has not changed significantly during his four years of college. He has approximately the same attitudes toward himself and others, the same degree of self-discipline and self-motivation, and the same ability to evaluate himself that he had as a freshman. It is as if he went through the motions, did what he was told to do, cleared all the hurdles, but did not let these things effect his behavior as a whole person. He looked upon knowledge as something

to be memorized rather than assimilated or integrated into his total behavior. What little knowledge he may have gained is more than counterbalanced by an alarming decrease in his desire to pursue knowledge. His parting words are: "I never want to read a book again as long as I live!" While this example may be an exaggeration, many students have asked themselves, "What did I learn from this course?" If you think of learning as a change in behavior, the above question is not always easy to answer.

Courses should make a difference; college should make a difference — a significant change in individual behavior. You, as an individual learner, can take command of your learning. In fact, you, the learner, must assume full responsibility. Your teachers, supervisors, or parents are in a position to give you invaluable assistance. The teacher sets the stage for your learning through manipulation of the classroom environment (Materials, assignments, examinations, physical set-up, etc.).

The classroom atmosphere for learning is affected significantly by the degree of teacher acceptance and encouragement. But, regardless of assistance, no one can learn for you.

You must expend the energy and **do** the changing. Assuming that you are physically and emotionally fit, "purpose" and motivation become critical factors in your learning. Many adults assume that it is too late for them to make any significant changes in behavior. The saying, "You can't teach an old dog new tricks", is accepted as a truism by apathetic adults. There is considerable evidence that the learning capacity of adults does not decrease until well beyond middle age. On the other hand, it is obvious that many adults lose the desire to learn at a relatively young age. In reality it is a failure, due primarily to lack of "purpose" or motivation, to utilize to capacity the energy available.

Creating is learning; learning is changing. You, as an individual learner, can take command of our learning. It depends on the degree of self-motivation you develop through utilization of conscious "purpose". Only in this way

will you achieve the level of maturity and self-discipline required of a truly professional person.

There is no implication here that changing is easy. In fact, it is often very difficult to learn. If people have any degree of adjustment, satisfaction, or security, they hesitate to upset the comfortable balance. However conditions and people around us change constantly.

Let us assume that you are a member of an educational psychology class. In light of our discussion thus far, what are the implications for you as an individual learner in this class? What additional assumptions must you make in order for your learning in this class to be significant, efficient, and effective? What principles of educational psychology are you practicing in this class? Is this class a learning laboratory?

It is obvious immediately that there is no one in the class like you and that you are capable of making a unique and creative contribution to the class. This doesn't imply, however, that you are superior or inferior to any member of this class. You have dignity and worth like every other class member. As human beings you are all equal. You are all capable of learning (changing) but the responsibility rests with each individual learner.

From the beginning there is only one requirement—work (expenditure of energy) If you expect to learn, you have to work at it. While there is no easy road to learning, your work can be satisfying, fun, and relatively free from tension. This does not mean that it is always easy or pleasant. Within reasonable limits of educational psychology, (how people develop, learn, and adjust) start where you think you are and go to work — formulate tentative objectives, make plans, carry out your plans, and evaluate the results. These are all integral parts of the learning process.

It is a difficult task to formulate realistic goals and objectives. While the teacher, undoubtedly, has many goals and objectives in mind, he hesitates to impose all of them upon you. He knows that you will accept more readily a few of his goals if you are given some freedom and a chance to participate in the

formulation of your own goals. Instead then, he suggests long term objectives which will provide a realistic framework for your goals.

He hopes that you **will make some progress toward becoming a mature person**: a person who understands himself and others, who has a constructive attitude toward other people, and a reasonable degree of self-discipline. Since any one class can make only limited contributions to your growth, he hopes that you will **develop an even greater desire to continue learning** — really get excited about your learning. If your goals fit into this framework, the teacher is in an excellent position to give you assistance, and you will be working toward goals which will insure your professional growth.

Making plans and completing a project requires tremendous expenditures of energy. Developing the self-discipline to master this phase of the learning process is a life long undertaking. Learning to solve problems with a high degree of insight and understanding requires years of educational training. Learning to live with and through failure situations is one of our most difficult lessons. You must develop the perseverance to collect and study facts, to analyze them, and to interpret the results. This class will give you an opportunity to experience problem-solving situations and, if time permits, to experience reasonable success.

One of the most significant phases of the learning process is evaluation. Many students fail to utilize the many excellent opportunities for evaluation — particularly for self-evaluation. While you will find many valuable sources of extrinsic evaluation, it is the resulting self-evaluation which enables us to revise our short-term goals and plans and progress more efficiently and effectively toward our long term objectives. Self-evaluation is neither the beginning nor the end but rather an integral part of a continuous process.

Also, from the beginning, it is apparent that the teacher plays a strategic role in the group. You find him predominately discouraging or encouraging. There are many ways in which he en-

courages you to work. For instance, you feel the encouragement of positive language. You appreciate it when, instead of frowning upon failure, he helps you to profit from it and to experience eventful success.

You are encouraged, also, if the teacher and students accept you as a person (as you are) regardless of what you know or what you do. If the teacher recognizes that you are imperfect, but that what you do seems logical to you, and that you are doing the best you are able to do with your present know-how, he is in a position to help you start to progress from where you are. To enable the teacher to be of maximum assistance to you, you must trust him. In like manner, if you trust your fellow students, it is easier for them to trust you. This is not unrealistic trust or blind faith implying that one person become a doormat or slave to another. It is an atmosphere of mutual trust and respect which allows for maximum acceptance, cooperation and understanding. It permits people to be dependent on one another and, at the same time, maintain relative independence. It is an atmosphere of interdependence.

You feel the significance of the teacher-student rapport and the student-student relationship. The class is thinking on a personality of its own. Like individuals, no two classes are alike. The classroom atmosphere is dynamic. This class is unique. It promises to be a thrilling and exciting adventure, in learning.

The teacher influences, also the balance of freedom to work and responsibility to work which you accept. If he gives the class members complete freedom with no teacher guidance or student responsibility, it will be anarchy, pure and simple—chaos. If he demands that class members assume responsibility to work with no freedom, it will be autocracy—simply a master-slave relationship. A realistic balance between freedom and responsibility is when you have freedom to work, utilize the teacher as a resource person and guide, and assume the responsibility to work.

The teacher will make suggestions for

work and many additional possibilities will occur to you. Normally, there are about four major areas of work: field work, reading, writing, and classwork. Field work includes work with children where you will have a chance to experiment as a leader or to observe other leaders. This experimentation will give you a chance to test ideas which emerge from your reading, writing, and classwork.

On the first day, you begin to take command of your learning. You have some goals in mind and, while they may be modified, you know that you learn more effectively when you work toward your self-selected goals. You select the areas of work which help you to proceed most efficiently toward your goal(s).

If your teacher training to date has been reading, writing, and listening, it may be that experimentation as a leader with children would be invaluable for your professional growth. With a minimum of talking, reading, and writing outside of class and normal classroom work, your hypotheses will be sharpened and ready for testing in actual work with children. Until we try things out and conclude things for ourselves, there is little chance of arm-chair hypotheses transferring from theory to practice. On the other hand, if you have had several years experience in social work or teaching, it may be best for you, at this point in your learning to read, reflect, assimilate, and then clarify your ideas through writing. You **can** make intelligent decisions concerning the **what** and **how** of your work.

You work **with** the teacher and use him as a guide. You try to avoid working **for** the teacher or being exploited by the teacher. At the same time you have no right to exploit the teacher or your fellow students. In this class, you have the right to listen and think with no fear of being called on, trapped, or embarrassed by the teacher but you also have an obligation to contribute your share of creative ideas to the class. You should not be a target or a parasite.

On the other hand, you should exploit opportunities to read and write and avoid just going through the actions. Decide what you wish to read and react



to the ideas presented. Integrate and assimilate the knowledge and then, through writing, clarify your thoughts and create new hypotheses. Writing (or talking) is an excellent opportunity for self-evaluation. This is the learning cycle—planning, doing, and evaluating. Evaluation stimulates new plans and another phase of work is under way.

Of course, you have the choice of being an active or passive learner in this class. No one is one hundred percent active or passive in his behavior and very few people are midway between the extremes. We all are more active at one time than at another but, over a period of time, we are progressing in one direction or another. It is relatively easy in our society today to assume a passive role. In fact, many of our well-meaning teachers reward passive behavior and punish active behavior. However, teachers are concerned also with destructive and constructive behavior which complicates considerably the teachers' responsibility. Nevertheless, we must face the fact that our number one problem at the college level is the number of students who are content playing a passive "spectator-type" role.

How does a typical person behave? He is a follower and a listener? What thinking he does is of the memory or robot-type variety. He does an excellent job of following the "one-two-three" type of problem solving. He contributes little—nothing creative. If anything, it is of the question-answer variety. He has very little curiosity or initiative. He never challenges an idea. Motivation is, for the most part, extrinsic. As a student, he is primarily teacher-motivated. Reading, writing, and other activities outside of class are done to please the teacher. He worships security, and fears change. Real learning is left to chance.

If you find yourself a passive learner, and, are not satisfied with this role, you, and only you, can change the direction of your growth and attempt to become a more active learner. Regardless of the pressure, (and it often is overwhelming) you make the decisions which move you toward active or

passive behavior. Through encouragement, mutual trust and a realistic balance between freedom to work and responsibility to work, your teacher is able to provide a climate which is conducive to active participation. But, in the final analysis, you must assume full responsibility for your behavior. It is granted that we do react to people and conditions around us, but our control is limited. We must look into ourselves for the possibilities of significant changes.

How does a typical active person behave? He displays considerable initiative, curiosity, and ingenuity. He is an active participant in a group and contributes his share of creative ideas. Self-motivation is the driving force behind his work. His work may help others as well as himself, but, he consciously decides "yes" before starting to work. He cooperates rather than just obeys. He not only assumes the responsibility to make decisions but accepts the consequences of his actions. He is able to do this because he has experienced success and doesn't fear failure or insecurity. He considers change and continuous learning synonymous with personal and professional growth.

This concept of learning and the resulting satisfaction and self-confidence correlates highly with one's ability to discipline himself. Discipline is referred to here as a concept of growth from dependence to relative independence—from immaturity to maturity. As we travel on this road to maturity, there are many conflicts. So often we are rewarded if we conform, and punished if we deviate. Yet, we all desire to be active to a degree. If we conform and are too dependent, we are frustrated. If we are too different and independent, we feel guilty and fear rejection. While, from day to day, we all oscillate between dependence and independence, it is not where we are at a given time but the direction we take, over a period of time, along this growth continuum which is significant. As we work toward self-discipline, one of the most difficult tasks is to accept and live with this ambivalence and the resulting fear, guilt, and frustration. Like in-

security and imperfection, we have little choice. We must accept ourselves as we are and remind ourselves occasionally that, while we are changing constantly (progressing, we hope) we are pretty good as we are.

From the experiences in this class, you will develop real courage of your convictions. Primarily through self-motivation, you will listen, talk, study, test your creative ideas, and then have the courage to put them into practice—the courage to express your uniqueness. You will have the courage to endure the conflict and pain involved in self-discovery knowing that self-understanding is a must for self-discipline and professional growth. You will have the courage to admit that you are imperfect and insecure and know that you must depend on others—recognize interdependence and cooperation as the key to survival in our world today.

This class is your learning laboratory; you will probably spend more time as a participant or observer in this group than in any other laboratory situation. This is your best opportunity to test in action the principles which emerge from your study of educational psychology. Here you can practice the theories which you preach.

In the afternoon of November 8, Isidor Walerstein, Purdue University Physics Department, presented an analysis of "Direct Experiences in College Teaching" with particular emphasis on the teaching graduate assistant. Mr. Walerstein's paper is as follows:

## I. Walerstein

### DIRECT EXPERIENCES IN COLLEGE TEACHING

The main theme of the workshop is focused on the improvement of college teaching, with the ultimate goal that by good example and improved methods and curricula, the trainee—a future grade or high school teacher—will perform more effectively in his capacity as a teacher and counselor. It may be fruitful to depart from this rigid interpretation of the theme, and consider the preparation or in-service training of teachers of college subjects. This is a problem of considerable concern to the larger universities where many of the classrooms



and laboratories in the freshmen and sophomore courses are staffed by graduate students. The utilization of these neophytes is so prevalent a practice in American universities, that in some cases they even outnumber the regular staff members who are participating in the teaching of the same course. Whether this is really the most expedient educational procedure, is no longer the question. The total number of professionally competent people in the country, who could be fully entrusted with the task of independent operation of these classes is woefully inadequate, and the financial involvement for these institutions, while not prohibitive does loom very large in the eyes of legislators and boards of regents.

Some of the facets of this arrangement will now be analysed, and several proposed ameliorations of inherent deficiencies will be considered.

First we must recognize that many, if not most of the graduate students in the physical sciences, mathematics, and even biological sciences, are not considering college teaching or any other pedagogical effort as their ultimate goal. In addition most of them do not feel any close identification with the general teaching faculty. Rarely have they planned the recitation or laboratory course they teach, nor are they required to revise it. In some cases administrative officers look down on the teaching assistant as someone who is getting paid while working for an advanced degree. The student at the same time is aware that, while earning just enough to keep body and soul together, he will have to work so much longer to obtain a degree and yearns to be relieved of this time consuming task.

The above are external factors which create difficulties. Turning now to the teaching assistant himself, his shortcomings may be even more decisive in determining his success or failure in the classroom. He may not have had any previous teaching experience or training. In some cases the most elementary appreciation of appropriate classroom deportment, proper inflection of voice, techniques of holding the attention of the class etc. are lacking. Usually these shortcomings are not too pronounced and can be corrected in a short time. There are however, some more serious deficiencies which are frequently encountered and which can not easily be removed without a long period of training. These refer mainly to a lack of real knowledge of the subject taught. Students often arrive in graduate departments from a variety of schools and their preparation in the subject may not have been sufficiently extensive. The mater-

ial covered in the general courses at the lower levels has undoubtedly been part of the student's training. However, a loss of memory coupled with a preoccupation with the higher phases of the subject have dulled his real appreciation of the basic principles and foundations of the science as a whole.

Coupled with that is a lack of historical perspective and a meager awareness of the social impacts of science in the present and past centuries. A prevalent symptom of these shortcomings is the lack of reverence one often finds among graduate students for the names and achievements of great scientists of the past whose work was done with the crudest equipment but whose deep insight produced the great milestones in the development of science.

This then is the picture of the teaching assistants who are asked to contribute to the teaching of the general courses at the lower level. It varies somewhat from institution to institution and has its fluctuation in time at any one institution. No one is satisfied with the situation and much work is being done at various places to try to raise the teaching standards of these recitation and laboratory assistants to a high level. The procedures used vary from place to place and depend to a great extent on the maturity of the teaching assistants, the attitudes of the teaching staff, and the importance of the program for the college.

What follows is illustrative of the procedures used in the department of physics at Purdue University to train teaching assistants and of the conclusions drawn at the conference held at Northwestern University last summer on the training of laboratory teachers. This conference was convened by Prof. C. J. Overbeck and 40 representatives from 33 colleges pooled their experiences and arrived at a list of recommendations for the training of college physics laboratory assistants.

To overcome the external factors which were mentioned before, it is necessary to convey to the faculty as a whole, and to the teaching assistants in particular, the importance of their work in the entire program of college instruction. This should be explicitly stated by the administrative officers of the university as well as by the heads of the departments and the immediate supervisor of the teaching staff. A change of attitude on the part of some higher administrative officers has been to the good and in their institutions the monetary reward to teaching assistants has been made higher than the stipend for research fellows. This is certainly justifiable and improves the moral of the teaching assistants. As an added inducement towards greater interests in the peda-

gogical effort, some institutions feature a group of common meetings for teaching assistants from all departments of the University. At these meetings some of their common problems are discussed, and matters of teaching techniques, problems of speech, structure of the university, psychological problems of leader and group relation are presented by experts in these fields. In some universities a Best-Teacher award is used to recognize the good work of the graduate assistant whose success has been measured by student reaction and by the judgment of his peers and superiors. This award is quite separate from the corresponding one employed to recognize members of the regular staff. These measures help greatly in developing a positive attitude toward the teaching assignment even on the part of those who plan to seek their future in work outside the educational field.

A further constructive impetus is offered by those teaching supervisors who make an honest effort at inducing teaching assistants to participate in the planning of the courses, its continued revision, and the development of examinations. This affords an opportunity for participants to do some real creative work, and many a supervisor will acknowledge that he himself has learned a great deal from these common efforts. In this program one of the first considerations is the statement of objectives to be reached. While most experienced teachers intuitively feel that these objectives are clear in their own minds, it is interesting to note that when a number of teaching supervisors met recently, they could only reach a partial agreement on stated objectives after prolonged discussions. Why then should the novice be expected to have these clearly in his mind without any previous discussions or elucidation? This lack of a clear statement of objectives has been one of the chief complaints of graduate assistants.

It is also commonly agreed that a very useful device for training teaching assistants is to have weekly staff meetings in which the experienced and the nonexperienced assistants together with some senior staff members participate. These weekly meetings should be devoted to a consideration of the week-by-week problems which arise in the classroom, discussion of new assignments or experiments, anticipation of the common student pitfalls, teaching techniques most suitable for the particular sections of the work, details of grading, and factors contributing to uniformity in the treatment of students. These weekly meetings should be preceded by an intensive program during the week prior to the opening of school for a thorough discussion of objectives of the course and indoctrination of the teaching assistants in the proper methods of teaching and personal behavior.

This period would include a discussion of laboratory manuals, course textbooks, special details of records, supplies, maintenance, etc.

Some of the motivations that the teaching assistant needs such as proper remuneration, genuine voice in the administration and planning of the course, development of esprit de corps, and prizes and awards, have been mentioned earlier. Further modes of fostering this motivation, may include pay increases with experience, the promotion from laboratory teaching to recitation work or to a new challenging field, and academic credit for the weekly training sessions. It is further considered that the morale of the teaching assistant is improved, and he will be challenged to greater effort, if important senior members of the staff participate in the instruction through recitation or laboratory work in the same course. Many institutions have inaugurated methods for evaluation of the teaching assistant's work. These are highly commendable. The answers received from student questionnaires can serve as a good guide for the improvement of the performance of each individual instructor and are a useful record in the recognition of excellence of teaching.

The weekly meeting if properly conducted can serve more than a step-by-step guide for each separate assignment. It can include discussion of the ramifications of the subject and of some of its advanced phases. The meeting can serve partially as an integrating device for the separate disciplines learned by students in their advanced courses. Phases of historical development and considerations of the impacts of science on society should form part of the discussion period.

Teaching assistants are urged to visit the classes of staff members or of other experienced teaching assistants. The classes they are recommended to visit are conducted by those members of the staff whose excellence of teaching procedures is well-known. In addition, the teaching supervisor or other senior members will visit the classes of the new teaching assistants. These visits are arranged with the assistant well in advance so that there is no element of surprise. They are followed by a conference between the two persons involved, to discuss strong and weak features of the assistant as a teacher. It is a source of mutual pleasure if such a conference can be dispensed with due to the excellent performance of the teaching assistant. This occurrence is rather rare. Amongst the common failings noted, is a lack of time sense, resulting in poor planning and consequent failure to deal with some of the major aspects of the assignment before the bell rings. Furthermore some novices are deluded by their own

cleverness. They delight in mathematical elaboration and fail to give due emphasis to the associated physical concepts or principles. To the ordinary student each physical event is itself a complex, and he must be taught by inductive procedures to extract the important traits. The process of organic growth from the recognition of a physical situation to the final abstraction of its important and relevant features is one of the vital goals of our courses and must be carefully nurtured. Failure to recognize this leads to confusion rather than clarification. If the symbolism becomes the main theme, than the structure becomes veiled. Coupled with that is a sort of parochialism due to the assistant's lack of familiarity with allied fields. These difficulties can be partially overcome by prodding the assistant's memory to evoke many familiar examples which he can use as illustrative material for an inductive development of the subject.

The above procedures have been used with considerable success. Graduate assistants who are not planning to become college teachers are encouraged to do their best when assigned to a class or laboratory. Those who are interested in future academic work are given an opportunity to vary their programs of teaching. They may work with students of agricultural or of the biological sciences for a while, then with engineering students or even in the general education course if they have displayed particular originality of approach. The success of this effort is partly reflected in the acknowledgement by the assistant, that in teaching, he has effectively prepared himself for the preliminary examination for the advanced degree. Amongst the many students who are in the classes conducted by these teaching assistants are some who are teacher candidates. If our training program for the assistants is successful it will be of direct benefit to these candidates. The structure of this training program is therefore quite relevant to the deliberations of this workshop on teacher education.

The case for Travel-Study as a fruitful method of collegiate instruction was presented by a panel consisting of Merrill T. Eaton, Indiana University; Benjamin Moulton, Butler University, and William Miner, Eastern Illinois State

## Eaton, Miner, Moulton

Mr. Eaton explained that the purpose of this idea is to move back the horizon of learning by utilizing travel as a means to make learning concrete, to provide the un-

derstanding of other cultures especially needed in a troubled world, and to furnish fresh stimulus. He emphasized the importance of the directorship of such programs and estimated that about 400 colleges were allowing credit for travel-courses. The Evolution of the National Council for Educational Travel was traced. Mr. Eaton singled out the following as important questions: the preparation of the students for the travel, the basis of awarding credit, the use of the experience in the classroom, evaluation of the individual's learning, and decisions as to how to set up a travel program and where to travel.

Mr. Miner described various aspects of the preparation for travel: telling students what to expect, providing a list of hotels (which is sent home to the families), instruction to travel light, giving materials on places to be visited, issuing reference books, and giving directions concerning the keeping of a notebook.

Mr. Moulton treated the question of assigning credit to such courses by estimating that the total made up of 14 hours of preliminary lectures and 10-12 days equaling a 4-hour laboratory per day may be regarded as the equivalent of 3 credits, and stated that one figures about twice as much "Work" as usual. Usually not more than 6 semester hours are allowed to be taken via such courses.

Mr. Miner explained that grades for such courses were based upon initial preparation, use of reference books, the travel-notebook, and a final examination, plus additional requirements for advanced students.

In response to many questions, much data were presented on the innumerable "housekeeping" details of such ventures.

The final presentation of promising procedures in collegiate instruction was given by a panel of three on Tuesday morning. "The Laboratory Approach to College Teaching" was discussed by Elmer Clark of Indiana State Teachers College, Social Studies Department; Philip Wilder, Wabash College, Political Science Department, and Alan Walker, Earlham College, Sociology Department.

Mr. Clark presented the story of the Citizenship Education Project which began as a secondary school program and has been adapted for collegiate instruction with notable success.

The basic principles of the program are getting students to study real social civic issues and to take some specific action on these issues following careful study and



consideration of them. Some of the illustrations cited were the analysis of a lowered water table and consequent recommendations, the planning and operating of a world affairs institute, a project in blood typing and the study of a local problem in city annexation.

Mr. Wilder presented a paper on "New Developments in Political Science Teaching" as follows.

The new developments in Political Science teaching reflect a change in the aims of political science teaching. When a Committee of the American Political Science Association formulated its supposedly exhaustive survey of the functions of the profession a few years ago (entitled "Goals of Political Science") training of citizenship was completely omitted.

This seems extremely unfortunate. If one of the basic goals for all our education is preparation for participation in free society, this is even more important for the teaching of political science, which covers specifically the vitally important problems of participation in the political processes of that society. If this function of political science teaching was not completely ignored in the past, it is at least true that it has received considerably greater emphasis in the past few years.

Along with this change in emphasis as to goals has come the introduction of new techniques of teaching in this field—techniques specifically designed to prepare the college graduates for participation in our political and governmental processes.

Even now this constitutes only a minor fraction of the field covered by most departments of government or political science. The bulk of the attention is still devoted to the study of the structure of government (which of course constituted the bulk of government courses only a few decades ago), the functional relationship of government with the society and economy in which it operates, and the normative foundations of our system which are treated under the heading of political theory. In many colleges the work in the field of political participation is entirely on an extra-curricular basis. In those where it has been brought into the classroom program it normally occupies a definitely secondary role, and so far as I am aware, Indiana University is the only college in Indiana which offers a separate course focused on political participation. Although this change has been limited in scope, it has been of considerable importance, and I am pleased to have this opportunity to describe it to you.

The basic change has probably been in the direction of bringing a greater sense of reality to the teaching of government, of

narrowing the gap between what is considered in the classroom and what goes on in the outside world. This has taken place in varying degrees throughout the departmental offerings in the introductory course as elsewhere. One extremely interesting development has been in the field of public administration, where cases based on experiences in actual governmental agency operations have been made available to supplement or possibly replace the normal textbook. These cases, which are modeled after those used at the Harvard Business School for many years, succeed to a remarkable degree in capturing the atmosphere and flavor of public administration and have helped to convert a course, which in the past was probably the duller offered by the department, into one of the most exciting. I believe that at the same time the effectiveness of the course has been correspondingly increased.

A program is now under way to develop a similar collection of cases for use in the course in political parties.

One interesting and rather extreme device for bringing greater reality to undergraduate work in political science is the Washington semester program which American University has developed in cooperation with a number of colleges throughout the nation. At present four Indiana colleges are taking part in this program, which provides for a limited number of students to spend one semester of their undergraduate careers in residence at American University, which is in Washington D.C. These students take two or three regular classroom courses and in addition receive three hours credit for an individual research paper on some facet of governmental operations and three hours credit for a wandering seminar in which they visit the various governmental agencies, interview the people who are running the government and gives the students a remarkable opportunity to witness government at first hand.

In terms of the specific attempt to encourage political participation by college trained citizens one of the interesting programs is that being carried on by the Citizenship Clearing House, which was conceived by Arthur T. Vanderbilt when he was Dean of N.Y.U. Law School and still has its headquarters there. One of the catch phrases describing the objectives of this program is "Better minds for better politics." It is not aimed at encouraging work in the government or even at encouraging campaigning for office. Its basic thesis is that if better educated citizens played as active a part in the operation of the machinery of the political parties, it could have an extremely beneficial effect on the political climate of the country.

The Citizenship Clearing House has received funds from the Falk Foundation to carry on a national program designed to encourage this development. This program is on an extremely decentralized basis, with the actual conduct of most programs left to state and regional affiliates.

Last April the Indiana Clearing House was founded here at Turkey Run at a meeting of representatives from the several Indiana colleges. This fall there were student conferences at Ball State Teachers College and at Wabash in which representatives of political parties presented their ideas to students. In January students met with party leaders in Indianapolis. Approximately twenty colleges are now in this program studying ways of becoming participating citizens.

This program of inducting college students into active political participation could be a powerful stimulus to American democracy. It certainly vitalizes the teaching of political science.

Mr. Walker presented the Earlham concept of cooperation with communities as an educational procedure.

The Earlham approach to the community is as a participative laboratory. When persons in a community invite college staff members to come help with their problems, faculty and students leave their classrooms for this participative laboratory. These procedures have been in operation for the past seven years in Indiana communities. For the past four years the college has operated a project in Puerto Rico. Students enroll in an Interdepartmental Course for three credits. A major focus of attention in this course is Human Relations. How do peoples work together? In the four summers at Puerto Rico the 10-20 students have built roads, schools, a work camp, a community center, and a milk station with the Puerto Ricans.

These projects give students opportunities to use all their college education to participate in social change.

As has been the custom participants in the workshop were divided into discussion groups. Following each presentation to the workshop as a whole, time was provided for discussion groups to weigh local applications of the ideas presented.

An outstanding feature of the workshop was the summary evaluation by Dean John E. Grinnell of Indiana State Teachers College. With incisive characterizations, literary quotations and warm good humour, Dean Grinnell underlined the major ideas which had been presented and placed the proceedings of the workshop in clear perspective. The exceedingly difficult task of pulling together reports from the four discussion groups was handled with ease.



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